ENCOUNTERS WITH SCIENCE NO. 101 (3-2703) JANUARY 23, 1976
RHODA MAINES

OLDEST CIVILIZED SOCIETY

ANNCR:

THE VOICE OF AMERICA PRESENTS ...ENCOUNTERS WITH SCIENCE ... A WEEKLY REPORT ON THE WORK OF AMERICAN SCIENTISTS. TODAY: THE OLDEST CIVILIZED SOCIETY.

VOICE:

AS THE UNITED STATES CELEBRATES ITS BICENTENNIAL, SCIENTISTS ARE TAKING A LONG LOOK INTO THE AMERICAN PAST, MUCH FURTHER BACK THAN TWO HUNDRED YEARS AGO. THE OLDEST CIVILIZED SOCIETY IN THE NEW WORLD HAD COME AND GONE BY THE TIME THE FIRST EUROPEANS ARRIVED. IT WAS THE OLMEC CIVILIZATION ...IN CENTRAL MEXICO. DOCTOR BETTY MEGGERS OF THE SMITHSONIAN INSTITUTION'S ANTHROPOLOGY DIVISION GIVES HER DEFINITION OF CIVILIZATION ITSELF.

TAPE: CUT ONE -- MEGGERS

"...WELL, PEOPLE DIFFER AS TO WHAT THEY DEFINE AS CIVILIZATION. BUT, TRADITIONALLY THEY MAY BE CITIES, OR THEY MAY BE REALLY CEREMONIAL CENTERS WHERE JUST THE ELITE AND CRAFTSMEN, AND PEOPLE LIKE THAT LIVED, MORE ADMINISTRATIVE CENTERS, AND THIS SORT OF THING IS OUR CRITERIA OF CIVILIZATION AS OPPOSED TO PEASANT FARMING TYPES OF COMMUNITIES WHERE THEY DIDN'T HAVE THIS KIND OF ELABORATE STRUCTURE."

VOICE:

DOCTOR MEGGERS HAS THIS TO SAY ABOUT CIVILIZATIONS IN NORTH AMERICA.

TAPE: CUT TWO -- MEGGERS

"...WELL, THE OLDEST ONE IN THE NEW WORLD, ACCORDING TO OUR CURRENT ARCHAEOLOGICAL INFORMATION, IS THE OLMEC IN MESO AMERICA, NAMELY CENTRAL MEXICO. AND IT MAKES ITS APPEARANCE VERY SUDDENLY, ABOUT 1200 B.C., ALL OVER THIS AREA. AND THERE WERE PEOPLE THERE BEFORE. THERE WAS A GRADUAL DEVELOPMENT OF SEDENTARY LIFE, THE BEGINNINGS OF AGRICULTURE TWO OR THREE THOUSAND YEARS EARLIER THAN THAT. PEOPLE WERE BEGINNING TO

SETTLE DOWN INTO SEDENTARY VILLAGES. THEY WERE GETTING LARGER. THEY WERE SCATTERED ALL OVER THE COUNTRYSIDE... SORT OF LIKE IF YOU FLY OVER EUROPE, AND YOU SEE THESE LITTLE TOWNS SEPARATED BY MAYBE FIVE, TEN MILES (EIGHT, SIXTEEN KILOMETERS) APART."

VOICE:

QUITE SUDDENLY, THE SEDENTARY VILLAGE CHANGED.

TAPE: CUT THREE -- MEGGERS

"...TO MONUMENTAL ARCHITECTURE, WRITING, SOPHISTICATED METHODS OF KEEPING TIME, A VERY ELABORATE ART STYLE, SYMBOLISM INDICATIVE OF A VERY SOPHISTICATED RELIGIOUS BELIEF, CEREMONIAL CENTERS WHERE PEOPLE CAME, APPARENTLY AS PILGRIMS, AND BROUGHT TRIBUTE AND EXOTIC MATERIALS FROM HUNDREDS OF KILOMETERS AWA-... AND ALL OF THIS HAPPENS SORT OF OVERNIGHT."

VOICE:

PRESENT-DAY SCIENTISTS DON'T HAVE ENOUGH FACTS TO UNDERSTAND THIS "OVERNIGHT" EXPLOSION INTO A SOPHISTICATED CIVILIZATION.

TAPE: CUT FOUR -- MEGGERS

"...WHO DO WE EXPLAIN SUCH AN EXPLOSIVE THING WITH ALL THESE VERY INTELLECTUAL TYPES AND SORT OF ARBITRARY TYPES OF THINGS: BECAUSE THE KINDS OF SYMBOLISM, OF THE FELINE FOR EXAMPLE -- WHY THE FELINE, WHY IS IT DEPICTED IN CERTAIN WAYS, WAY ARE CERTAIN OTHER SYMBOLIC ELEMENTS, HOW DID ALL OF THESE THINGS HAPPEN AT ONCE? AND THEN IF YOU GO OVER AND LOOK AT WHAT WAS HAPPENING IN CHINA AT THAT TIME, YOU FIND THAT THERE WAS A CIVILIZATION THERE THAT BEGAN ABOUT FIVE HUNDRED YEARS EARLIER, AND LASTED A COUPLE OF HUNDRED YEARS AFTER THE BEGINNING OF THE OLMEC, AND IT HAD MOST OF THESE ELEMENTS THAT ALL OF A SUDDEN APPEAR IN MESO AMERICA."

VOICE:

HOW IS IT THAT, NO LATER THAN 1,000 B.C., HIGH CULTURES FLOURISHED IN BOTH THE OLD WORLD AND THE NEW? DOCTOR MEGGERS THINKS IT POSSIBLE THERE WAS TRANSPACIFIC CONTACT BETWEEN THE FIRST CIVILIZATION IN CHINA, THE SHANG, AND THE FIRST IN THE NEW WORLD, THE OLMEC. IS THERE ENOUGH EVIDENCE SHOWING OLMEC CULTURE RESULTS FROM CHINA'S SHANG CULTURE?

TAPE: CUT FIVE -- MEGGERS

"...OR WHETHER IT DEVELOPED THROUGH THE INNATE GENIUS OF THE LOCAL INDIANS. IS IT A LOCAL PHENOMENON,... SOME CREATIVE GENIUS ALL OF A SUDDEN... OR IS THERE SOMETHING IN THE PROCESS OF CIVILIZATION.. LET'S SAY IN ITS EVOLUTION... THAT AT A CERTAIN POINT, YOU COME TO A THRESHOLD AND CERTAIN KINDS OF DEVELOPMENTS OCCUR AS A RESULT OF A CRITICAL MASS OF PEOPLE... AND SO ON AND SO FORTH... WHETHER THIS IS A REPETITIVE THING, OR WHETHER ALL OF THE WRITING, MATHEMATICS, METALLURGY, HAD A SINGLE ORIGIN AND THEN WERE DISPERSED IN DIFFERENT WAYS TO DIFFERENT CONTEXTS, AND REFORMULATED TO SUIT THE LOCAL SITUATION. BUT, THE BASIC IDEA WAS TRANSMITTED, AND INVENTED, ONLY ONCE, THIS IS THE QUESTION WE DON'T KNOW YET."

VOICE:

WHETHER BY ACCIDENT OR BY PLAN, THERE ARE MANY PARALLELS BETWEEN THE TWO CULTURES. DOCTOR BETTY MEGGERS WORKS WITH OTHER SCIENTISTS TO SHED MORE LIGHT ON THE AMERICAN HERITAGE AS THE UNITED STATES CELEBRATES ITS BICENTENNIAL YEAR.

ANNCR:

THIS HAS BEEN ENCOUNTERS WITH SCIENCE ...A REPORT ON THE WORK OF AMERICAN SCIENTISTS. YOU HEARD TODAY: THE OLDEST CIVILIZED SOCIETY. THIS PROGRAM WAS PRODUCED IN COOPERATION WITH THE UNITED STATES NATIONAL SCIENCE FOUNDATION.

RJM/RC/CAK